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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,928	12/19/2001	Shigeo Kouzuki	217636US3	9844

22850 7590 03/31/2006

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EXAMINER	
GRAYBILL, DAVID E	

ART UNIT	PAPER NUMBER
2822	

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/020,928	KOUZUKI ET AL.	
	Examiner	Art Unit	
	David E. Graybill	2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 9-23* is/are pending in the application.

4a) Of the above claim(s) *1 and 2* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Applicant's election with traverse of group II, drawn to claims 9-23 in the reply filed on 10-2-5 is acknowledged. The traversal is on the ground(s) that, "The outstanding Office Action clearly has not established that there would be a serious burden to examine each of the claims together. Applicants respectfully note that is also clearly the case as previously each of the claims has been examined together."

This is not found persuasive because there is a serious burden if restriction of groups I and II is not required, and this serious burden was sufficiently shown in the restriction requirement by appropriate explanation of separate classification, or separate status in the art, or a different field of search. See MPEP 803. However, to continue to afford applicant the benefit of compact prosecution, restriction was not initially required, and this burden was incurred in the initial examination of both groups. But, the serious burden remains, and the reasons for insisting on restriction as stated in MPEP 808 have been clearly met.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1 and 2 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10-20-5.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art and Dudderar (6297551).

At page 1, line 7 to page 5, line 7; page 6, lines 32-34; page 7, lines 2-24; page 7, line 32 to page 8, line 5; page 8, line 24 to page 9, line 2; page 10, lines 20-22; page 10, line 31 to page 12, line 3, applicant admits as prior art all of the limitations of the claims except for the following.

Applicant does not appear to admit as prior art a copper plating layer being formed on the first electrode and capable of being soldered onto the extraction electrode.

Nonetheless, at column 5, lines 4-47, Dudderar discloses a copper plating layer "coating" being formed on a first electrode "ground plane" and inherently capable of being soldered onto the extraction electrode. Moreover, it would have been obvious to combine this disclosure of Dudderar with the disclosure of the admitted prior art because it would enable soldering of the admitted prior art aluminum first electrode layer 97 to the copper extraction electrode 55.

Also, although applicant does not appear to explicitly admit as prior art the process limitations, "selectively formed," "wherein said metal plating layer is selectively formed in a region of said first electrode layer by using said protective film as a mask," "wherein said metal plating layer is formed by a wet electroless plating," and, "said metal plating layer being formed of a second metal on said first electrode layer by a wet electroless plating," the product of the admitted prior art inherently possesses any structural characteristics imparted by the process limitation. See In re Fitzgerald, Sanders, and Bagheri, 205 USPQ 594 (CCPA 1980).

Claims 9-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art and Enomoto (6492255).

At page 1, line 7 to page 5, line 7; page 6, lines 32-34; page 7, lines 2-24; page 7, line 32 to page 8, line 5; page 8, line 24 to page 9, line 2; page 10, lines 20-22; page 10, line 31 to page 12, line 3, applicant admits as prior art all of the limitations of the claims except for the following.

Applicant does not appear to admit as prior art a copper plating layer being formed on the first electrode and capable of being soldered onto the extraction electrode.

Nonetheless, at column 5, line 59 to column 6, line 27, Enomoto discloses a metal plating layer 40, 42 being formed of a second copper metal and inherently capable of being soldered onto the extraction electrode. Moreover, it would have been obvious to combine this disclosure of Enomoto with applicant's admitted prior art because it would enable soldering of the admitted prior art aluminum first electrode layer 97 to the copper extraction electrode 55 with high connection reliability.

Also, although applicant does not appear to explicitly admit as prior art the process limitations, "selectively formed," "wherein said metal plating layer is selectively formed in a region of said first electrode layer by using said protective film as a mask," "wherein said metal plating layer is formed by a wet electroless plating," and, "said metal plating layer being formed of a second metal on said first electrode layer by a wet electroless plating," the product of the admitted prior art inherently possesses any structural

characteristics imparted by the process limitation. See In re Fitzgerald, Sanders, and Bagheri, 205 USPQ 594 (CCPA 1980).

Applicant's amendment and remarks filed 7-5-5 have been fully considered, are addressed by the rejections supra, and are further addressed infra.

Applicant asserts, "with reference to Figure 1 of the present specification as a non-limiting example a metal plating layer 37 is formed on the electrode 17. Clearly Dudderar does not teach or suggest such a structure. That is, Dudderar does not disclose or suggest forming any type of metal plating layer on an electrode structure."

These assertions are respectfully deemed unpersuasive because the scope of the claims is not limited to Figure 1 of the present specification wherein a metal plating layer 37 is formed on the electrode 17, and Dudderar is not necessarily applied to the rejection for this disclosure. Furthermore, as elucidated in the rejection supra, Dudderar discloses a type of metal plating layer on an electrode structure.

Also, applicant alleges, "if the teachings in Dudderar of the metal layer 21 were combined with the teachings in the admitted art, that would clearly result in the admitted art being modified to include a metal layer on top of a substrate. Such a structure would not meet the claim limitations."

This allegation is respectfully deemed unpersuasive because Dudderar is not necessarily applied to the rejection for a disclosure of metal layer 21.

The art made of record and not applied to the rejection is considered pertinent to applicant's disclosure. It is cited primarily to show inventions relevant to the examination of the instant invention.

For information on the status of this application applicant should check PAIR: Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alternatively, applicant may contact the File Information Unit at (703) 308-2733. Telephone status inquiries should not be directed to the examiner. See MPEP 1730VIC, MPEP 203.08 and MPEP 102.

Any other telephone inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Graybill at (571) 272-1930. Regular office hours: Monday through Friday, 8:30 a.m. to 6:00 p.m.
The fax phone number for group 2800 is (571) 273-8300.

David E. Graybill
Primary Examiner
Art Unit 2822

D.G.
24-Mar-06